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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,145	11/18/2003	Stephen O'Brien	TYPE-01000US0	6764
28554	7590	01/10/2006	EXAMINER	
VIERRA MAGEN MARCUS HARMON & DENIRO LLP 685 MARKET STREET, SUITE 540 SAN FRANCISCO, CA 94105			DEBROW, JAMES J	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,145	Applicant(s) O'BRIEN, STEPHEN	
	Examiner James J. Debrow	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/23/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application filed on 19 June 2003.
2. Claims 1-21 are pending in the case. Claims 1, 7, 10, 11, 17, 18, and 19 are independent claims.

Priority

3. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. [1] as follows:
4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in *Australia* on 11/18/2002. It is noted, however, that applicant has not filed a certified copy of the 2002952711 application as required by 35 U.S.C. 119(b).

Specification

5. The disclosure is objected to because of the following informalities: The abstract and specification contains an incorrect spelling of the word "utilizes". Applicant uses a spelling of "utilise", instead of the correct spelling "utilizes". Appropriate correction is required.

Claim Objections

6. **Claim 18** is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 17. See MPEP § 608.01(n). A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. Accordingly, the claim not been further treated on the merits.

Claims 20, and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 2, and 11-21, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In regard to claim 1, this claim lacks practical application and a tangible result. Scoring based on a rule is an abstract idea, rather than a practical application of the idea. Scoring, in and of itself, is too preliminary in the overall disclosed practical application to, in and of itself, be a practical application of an idea. It does not represent a tangible result. Applying the score in a meaningful way to do a real world application would represent a tangible result.

In regard to claim 2, this claim has practical application, but no tangible result.

In regard to claims 11, 13-21, it is unclear as to which statutory category these claims apply. These claims further define the processing system, not the apparatus. An apparatus formed by a system is not a proper claim.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether "finished work" is referring to the book, or to the layout. The term "finished work" in this instance needs clarification.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui et al. (Patent No.: 5,517,621; date of Patent: May 14, 1996) in view of Simon et al. (Pub No.: US 2002/0040375 A; Filing Date Apr. 3, 2001).**

In regards to independent claims 1, and 11, Fukui et al. discloses a document formatting system. In one embodiment of the invention, the system comprises means for inputting document data representing the document, including figure data (*content data*), and region data indicating a layout region (*defined space*) to which the document is to be laid out; means for generating and selecting candidate/element layouts for each

figure element; and means for formatting the document in the layout region according to the selected candidate/element layouts (*design data*) (column 1, lines 53-63). Through an Operator Selection Input Unit the operator is allowed to select a desired candidate/element layout (column 4, lines 44-58; 15 in Fig 1). Fukui et al. further discloses a Candidate Layout Generation Module for generating candidates/*elements* for a layout of the document data (column 3, lines 44-45; 7 in Fig 1). The document data includes text data representing sentences of the document and figure data representing drawings and tables of the document (*alphanumeric and/or graphical elements*) (column 3, lines 66-67). The Candidate Layout Generation Module further consist of a Layout Position Candidate Generation Unit, which generates the candidates/*elements* positions for laying out the drawings and tables given by the figure data (*arranging geometrically the alphanumeric and/or graphical elements included in the content data*) (column 4, lines 21-23; 9 in Fig 1). Within the Candidate Layout Generation Module, Fukui et al. uses a Layout Result Estimation Unit to estimate the overall layout resulting from each candidate/*element* position by using the coordinates of the layout positions and margin sizes determined from the candidate/*element* positions (column 7, lines 3-6; 10 in Fig 1). The results of the Layout Result Estimation Unit is evaluated by a Layout Status Evaluation Unit according to the prescribed evaluation rules, and stored (*storing said score*) in a table as being satisfactory or unsatisfactory (column 7, lines 56-58; column 8, lines 49-53; 11 in Fig 1; Fig 19).

Fukui et al. does not disclose expressly *scoring the resulting layout according to the rules or rule included in the design data; repeating the above steps (a) to (c) for a plurality of iterative alphanumeric and/or graphical layouts.*

However, Simon et al. discloses a system that uses a “*scoring*” system when evaluating different page layouts. When evaluating a new layout with a prior layout, if the new layout has a greater *score* than the prior layout, the new layout is accepted (section 0061, lines 5-6; 210 in Fig 7). This optimization is iterated until the last iteration is obtained (*repeating the above steps for a plurality of iterative alphanumeric and/or graphical layouts*) (section 0061, lines 10-14; 250 in Fig 7).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of selecting an optimal page layout to minimize cost (Simon et al., section 0060, lines 1-2), to obtain the invention as specified in the claim(s).

In regards to independent claim 7, Fukui et al. discloses a document formatting system. In one embodiment of the invention, the system comprises means for inputting document data representing the document, including figure data (*content data*), and region data indicating a layout region (*defined space*) to which the document is to be laid out; means for generating and selecting candidate/element layouts for each figure element; and means for formatting the document in the layout region according to the selected candidate/element layouts (*design data*) (column 1, lines 53-63). Through an Operator Selection Input Unit the operator is allowed to select a desired

candidate/element layout (column 4, lines 44-58; 15 in Fig 1). Fukui et al. further discloses a Candidate Layout Generation Module for generating candidates/*elements* for a layout of the document data (column 3, lines 44-45; 7 in Fig 1). The document data includes text data representing sentences of the document and figure data representing drawings and tables of the document (*alphanumeric and/or graphical elements*) (column 3, lines 66-67). The Candidate Layout Generation Module further consist of a Layout Position Candidate Generation Unit, which generates the candidates/*elements* positions for laying out the drawings and tables given by the figure data (*arranging geometrically the alphanumeric and/or graphical elements included in the content data*) (column 4, lines 21-23; 9 in Fig 1). Within the Candidate Layout Generation Module, Fukui et al. uses a Layout Result Estimation Unit to estimate the overall layout resulting from each candidate/*element* position by using the coordinates of the layout positions and margin sizes determined from the candidate/*element* positions (column 7, lines 3-6; 10 in Fig 1). The results of the Layout Result Estimation Unit is evaluated by a Layout Status Evaluation Unit according to the prescribed evaluation rules, and stored (*storing said score*) in a table as being satisfactory or unsatisfactory (column 7, lines 56-58; column 8, lines 49-53; 11 in Fig 1; Fig 19).

Fukui et al. does not disclose expressly *repositioning the one or more element in the space; rescoring the positioning*.

However, Simon et al. discloses a system that uses a "scoring" system when evaluating different page layouts. When evaluating a new layout with a prior layout, if the new layout has a greater score than the prior layout, the new layout is accepted

(section 0061, lines 5-6; 210 in Fig 7). This optimization is iterated until the last iteration is obtained (section 0061, lines 10-14; 250 in Fig 7). Simon et al. also discloses a new trial page layout is generate by randomly changing the relative positions of the images in the current trail page layout (*repositioning the one or more element in the space*). The new trial page layout is then scored (*rescoring the positioning*) (section 0060, lines 7-10; 220 & 230 in Fig 7).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of selecting an optimal page layout to minimize cost (Simon et al., section 0060, lines 1-2), to obtain the invention as specified in the claim(s).

In regards to independent claims 10, 19, Fukui et al. discloses a document formatting system. In one embodiment of the invention, the system comprises means for inputting document data representing the document, including figure data (*content data*), and region data indicating a layout region (*defined space*) to which the document is to be laid out; means for generating and selecting candidate/element layouts for each figure element; and means for formatting the document in the layout region according to the selected candidate/element layouts (*design data*) (column 1, lines 53-63). Through an Operator Selection Input Unit the operator is allowed to select a desired candidate/element layout (column 4, lines 44-58; 15 in Fig 1). Fukui et al. further discloses a Candidate Layout Generation Module for generating candidates/*elements* for a layout of the document data (column 3, lines 44-

45; 7 in Fig 1). The document data includes text data representing sentences of the document and figure data representing drawings and tables of the document (*alphanumeric and/or graphical elements*) (column 3, lines 66-67). The Candidate Layout Generation Module further consist of a Layout Position Candidate Generation Unit, which generates the candidates/*elements* positions for laying out the drawings and tables given by the figure data (*arranging geometrically the alphanumeric and/or graphical elements included in the content data*) (column 4, lines 21-23; 9 in Fig 1). The Candidate Layout Generation Module also consist of a Layout Result Estimation Unit, which estimates the overall layout resulting from each candidate/*element* position by using the coordinates of the layout positions and margin sizes determined from the candidate/*element* positions *and* margin sizes determined from the candidate/*element* positions, and the sizes of the letter font used in the surrounding text data. Within the Candidate Layout Generation Module, Fukui et al. uses a Layout Result Estimation Unit to estimate the overall layout resulting from each candidate/*element* position by using the coordinates of the layout positions and margin sizes determined from the candidate/*element* positions (column 7, lines 3-6; 10 in Fig 1). The results of the Layout Result Estimation Unit is evaluated by a Layout Status Evaluation Unit (*scoring the resulting layout*), according to the prescribed evaluation rules, and stored (*storing said score*) in a table as being satisfactory or unsatisfactory (column 7, lines 56-58; column 8, lines 49-53; 11 in Fig 1; Fig 19). The Layout Result Estimation Unit also determines whether or not the adjustment of the margin alone is sufficient to place the entire figure elements and margin within the page frame (*determining whether the space for the*

alphanumeric and/or graphical elements exceeds the limited space) (column 7, lines 3-55; Fig 12).

Fukui et al. does not disclose expressly *resizing the alphanumeric and/or graphical elements if the space for the alphanumeric and/or graphical elements arranged in exceeds the limited space*.

However, Simon et al. disclose that improvements in the calculated page layout can be made by further scaling the images by different amounts (*resizing the alphanumeric and/or graphical elements*) (section 0062, lines 1-2).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of each *alphanumeric and/or graphical element* being able to fit onto the chosen page format (Simon et al., section 0059, lines 5-6), to obtain the invention as specified in the claim(s).

In regards to dependent claims 2, and 8, Fukui et al. does not disclose expressly *the defined space is a page in a book*.

However, Simon et al. disclose the term page is meant to include an album or scrapbook page, soft copy display, or other format where images are displayed (section 0046).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of

displaying the different alphanumeric and/or graphical elements from the plurality of iterative layouts in a book format, to obtain the invention as specified in the claim(s).

In regards to dependent claims 3, 9, and 12, Fukui et al. discloses a display unit for displaying the candidate/element layout (column 4, lines 40-43; 6 in Fig 1).

In regards to dependent claim 4, Fukui et al. discloses a Candidate Order Determination Unit, which determines the order of preference of the candidate/element layouts according to the evaluation obtained by the Layout Status Evaluation Unit (column 4, lines 34-37; 13 in Fig 1). The preference is assigned according to rules for the Candidate Order Determination Unit (Fig 20).

Fukui et al. does not discloses expressly *selecting an optimal layout of the different alphanumeric and/or graphical elements from the plurality of iterative layouts based on the layout having the highest score.*

However, Simon et al. discloses a system that uses a “*scoring*” system when evaluating different page layouts. When evaluating a new layout with a prior layout, if the new layout has a greater score than the prior layout, the new layout is accepted (section 0061, lines 5-6; 210 in Fig 7). This optimization is iterated until the last iteration is obtained (section 0061, lines 10-14; 250 in Fig 7). The system can automatically iterate through the page layout subroutine generating a predefined number of image page layouts. The page layout that has the highest score is then chosen as the

preferred page layout (*selecting an optimal layout based on the layout having the highest score*) (section 0069, lines 8-11).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of selecting an optimal page layout to minimize cost (Simon et al., section 0060, lines 1-2), to obtain the invention as specified in the claim(s).

In regards to dependent claims 5, and 6, these claims incorporate substantially similar subject matter as claim 4, and therefore, are rejected along the same rationale.

In regards to dependent claims 13, and 14, Fukui et al. discloses a document formatting system, which is consists of an Operator Selection Input Unit (*input commands received from the user*) (15 in Fig 1) which the operator uses to enter his choice of desired layout (*select a respective layout*) from a displayed list (Display Unit, 6 in Fig 1) of candidate/element layouts. The selection is then displayed (*generate output data representing the selected layout*) for inspection by the operator (Display Unit, 6 in Fig 1).

Fukui et al. does not disclose expressly *selecting the layout in accordance with the respective layout score*.

However, Simon et al. discloses a system that uses a "scoring" system when evaluating different page layouts. When evaluating a new layout with a prior layout, if the new layout has a greater score than the prior layout, the new layout is accepted

(section 0061, lines 5-6; 210 in Fig 7). This optimization is iterated until the last iteration is obtained (section 0061, lines 10-14; 250 in Fig 7). The system can automatically iterate through the page layout subroutine generating a predefined number of image page layouts. The page layout that has the highest score is then chosen as the preferred page layout (section 0069, lines 8-11).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of selecting an optimal page layout to minimize cost (Simon et al., section 0060, lines 1-2), to obtain the invention as specified in the claim(s).

In regards to dependent claims 15, and 16, Fukui et al. does not disclose expressly *the processing system being coupled to a communication network*.

However, Simon et al. discloses a system, which includes a personal computer (*one or more end stations*) that is coupled to a communication network, containing a central processing unit that can execute a set of predefined steps in carrying out the methods of the invention. The communication network may be comprised of the Internet (*transfer the output data to a selected end station*), and network server, which can be accessed by an individual using an Internet Service Provider (section 0047; Fig 1).

Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Simon et al. with Fukui et al. for the benefit of providing a customer convenient and efficient access to the processes and functions of the current invention.

In regards to dependent claim 17, this claim incorporates substantially similar subject matter as claim 13, and therefore, is rejected along the same rationale.

In regards to dependent claim 18, this claim incorporates substantially similar subject matter as claim 12, and therefore, is rejected along the same rationale.

In regards to dependent claim 20, this claim incorporates substantially similar subject matter as claim 19, and therefore, is rejected along the same rationale.

In regards to dependent claim 21, this claim incorporates substantially similar subject matter as claim 19, and therefore, is rejected along the same rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Debrow whose telephone number is 571-272-5768. The examiner can normally be reached on 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Debrow
Examiner
Art unit 2176

William F. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
1/6/2006